

## **REMARKS**

Claims 1-10 are pending upon entry of this amendment. Claims 9 and 10 have been allowed over the prior art. Applicants have amended claims 1-6 and 7-10. Support for these amendments can be found throughout the description and more specifically at paragraph 30. Accordingly no new matter has been added by the amendments. .

### **Claim Objections**

Claims 7-9 were objected to because: (1) “it” and “its” are unclear in line 1 of claims 7 and 8; and (2) “those” is unclear in claim 9, line 12. Applicants have amended the claims to clarify these terms. Accordingly, withdrawal of this rejection is respectfully requested.

### **Rejections under 35 U.S.C. § 102**

Claims 1-3 and 5-8 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Annis *et al.* (US Patent 4,839,913). For at least the reasons set forth below, Applicants respectfully submit that all claims are patentable over Annis.

A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Annis discloses an imaging system capable of displaying a shadowgraph image of targeted components of an object emitting a predetermined fluorescent radiation line. Annis does not teach or suggest emission of a beam of rays comprising a first ray component with a quantum energy above the K-edge of the XRF marker and a second ray component with a quantum energy below the K-edge of the marker. Rather, Annis teaches the use of filters F1 and F2 to tailor the response of the detector such that it responds substantially only to the predetermined fluorescent radiation line (See Annis, Fig. 2; and Col. 8, lns. 5-10). The F1 and F2 filters described in Annis filter radiation scattered by the detected object not the emitted beam of rays. Accordingly, the filters of Annis do not serve to adjust the intensity ratio between the first and second ray components in the beam of rays. Additionally, Annis does not teach or otherwise suggest the emission of a first ray component with a quantum energy above the K-edge of the XRF marker and a second ray component with a quantum energy below the K-edge of the marker, such that the quantum energy of the first ray component and the quantum energy of the second ray component deviates from the K-edge of the XRF marker by less than 10%.

Further, the Examiner has cited Fig. 5 of Annis as teaching that the components of the imaging system of Annis are coupled together and capable of pivoting about an axis of rotation. However, Fig. 5 depicts no coupling of any components. Rather, Fig. 5 depicts unconnected separate components. Moreover, nothing in the description or claims of Annis teaches or suggests coupling of all of the components or pivoting of the system about an axis.

In view of the above, Applicants respectfully submit that the applied art fails to disclose at all of the features of amended claim 1 or any of its dependent claims. Thus, a *prima facie* case of anticipation cannot be based on claim 1 or any of its dependent claims and these claims are patentable over the applied art. Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1-3 and 5-8 is respectfully requested.

**Conclusion**

Applicants respectfully request that the Examiner withdraw the objection and rejections of record, allow all the pending claims, and find the application in condition for immediate allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted

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